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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,422

11/25/2003

David William Trepess

450110-04831

2677

22850

7590

06/08/2006

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EXAMINER

COLAN, GIOVANNA B

ART UNIT

PAPER NUMBER

2162

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,422

Applicant(s)

TREPESS ET AL.

Examiner

Giovanna Colan

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/14/03 11/25/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is issued in response to applicant filed application on 11/25/2003.
2. Claims 1 – 39 are pending.
3. The information disclosure statement (IDS) submitted on 11/14/2005 and 11/25/2003. The submission is in compliance with the provisions of 37 CFR 1.97.

Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "substantially identical" in Claim 2 renders the claim indefinite.

Examiner is unclear to determine whether the term refers to identical information or not.

Examiner asserts that all claims should be checked for clarification. Appropriate action is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 – 4, 7, 10 – 11, 20 – 24, and 30 – 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Jain et al. (Jain hereinafter) (US Patent No. 5,983,237, issued: November 9, 1999).

Regarding Claim 1, Jain discloses an information retrieval system in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes; the system comprising:

a user control for defining a search criterion for selecting information items (Col. 9, lines 25 – 26, Jain);

a detector for detecting those positions within the array of nodes corresponding to the selected information items (Col. 1,5 and 20, lines 34 – 37 and 6 – 8; respectively, the [ROW, COLUMN] position, Jain¹);

¹ Wherein the indexing B-tree corresponds to the array of nodes claimed.

a graphical user interface for displaying display points representing those positions within the array of nodes corresponding to the selected information items (Col. 11, and 12, lines 62 – 64 and 1 –3, respectively, Jain²); and

a processor, responsive to the selected information items defined by the search criterion, for providing one or more representations representative of the information content of the selected information items (Col. 11, lines 24 – 29, the Query Processor, Jain).

Regarding Claim 2, Jain discloses a system, wherein the graphical user interface is operable to display a two-dimensional display array of the said display points (Col. 16, lines 8 – 12, Jain³).

Regarding Claim 3, Jain discloses a system, in which a dither component is applied to the mapping between information items and nodes in the array so that substantially identical information items tend to map to closely spaced but different positions in the displayed array (Col. 12, lines 61 – 65, Structure SYNONYM, Jain).

Regarding Claim 4, Jain discloses a system, in which the information items are mapped to nodes in the array on the basis of a feature vector derived from each information item (Col. 9, lines 44 – 50, Jain).

² In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 –

Regarding Claim 7, Jain discloses a system, in which the information items comprise textual information, the nodes being mapped by mutual similarity of at least a part of the textual information (Col. 12, lines 61 – 65, Structure SYNONYM, Jain).

Regarding Claim 10, Jain discloses a system, wherein the said user control comprises:

search means for carrying out a search of the information items (Col. 9, lines 25 – 26, Jain);

the search means and the graphical user interface being arranged to co-operate (Fig. 4, item 212, Col. 15, lines 51 – 52, Jain) so that only those display points corresponding to information items selected by the search are displayed on the user display (Col. 15, lines 46 – 49, Jain).

Regarding Claim 11, Jain discloses a system, wherein the said processor is operable to detect clusters of similar information items (Col.20, lines 6 – 12, Jain) and to provide representations representative of the information content of the respective clusters (Col. 20, lines 11 – 12, TID corresponds with “sky”, Jain).

Regarding Claim 20, Jain discloses a Video acquisition and/or processing apparatus comprising a system (Fig. 3, item 150, Jain).

Regarding Claim 21, Jain discloses an information retrieval method in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes; the method comprising the steps of:

defining a search criterion for selecting information items (Col. 9, lines 25 – 26, Jain);

detecting those positions within the array of nodes corresponding to the selected information items (Col. 15 and 20, lines 34 – 37 and 6 – 8; respectively, the [ROW, COLUMN] position, Jain⁴);

displaying at least display points which are at positions representing those positions within the array of nodes corresponding to the selected information items (Col. 11 and 15, lines 62 – 64 and 46 – 49, respectively, Jain⁵); and

in response to the selected information items defined by the search criterion, providing one or more representations representative of the information content of the selected information items (Col. 11, lines 24 – 29, Jain).

Regarding Claim 22, Jain discloses a method, wherein the displaying step displays a two-dimensional display array of the said display points (Col. 16, lines 8 – 12, Jain⁶).

³ Wherein examiner interprets the matrix as the two-dimensional array claimed.

⁴ Wherein the indexing B-tree corresponds to the array of nodes claimed.

⁵ In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 – 39, Jain).

Regarding Claim 23, Jain discloses a method, comprising:
carrying out a search of the information items (Col. 9, lines 25 – 26, Jain);
displaying on the display that only those display points corresponding to
information items selected by the search are displayed on the user display (Col. 15,
lines 46 – 49, Jain).

Regarding Claim 24, Jain discloses a method, comprising detecting clusters of
similar information items (Col. 20, lines 6 – 12, Jain) and providing representations
representative of the information content of the respective clusters (Col. 20, lines 11 –
12, TID corresponds with “sky”, Jain).

Regarding Claim 30, Jain discloses a computer software having program code
for carrying out a method (Col. 22, lines 50 – 52, programming interface, Jain).

Regarding Claim 31, Jain discloses a providing medium for providing program
code (Col. 22, lines 50 – 52, the plug-in architecture, Jain).

Regarding Claim 32, Jain discloses a medium, the medium being a storage
medium (Col. 19, lines 51 – 52, Jain).

⁶ Wherein examiner interprets the matrix as the two-dimensional array claimed.

Art Unit: 2162

Regarding Claim 33, Jain discloses a medium, the medium being a transmission medium (Col. 17, lines 15 – 18, Jain).

Regarding Claim 34, Jain discloses a user interface of an information retrieval system in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes; the interface comprising:

a user control for defining a search criterion for selecting information items (Col. 9, lines 25 – 26, Jain); and

a graphical user interface arranged to displaying display points representing those positions within the array of nodes corresponding to the selected information items (Col. 11 and 12, lines 62 – 64 and 1 - 3, respectively, Jain⁷) and to display one or more representations representative of the information content of the information items selected by the search criterion (Col. 11, lines 24 – 29, Jain).

Regarding Claim 35, Jain discloses a user interface, wherein the said user control comprises:

search means for carrying out a search of the information items (Col. 9, lines 25 – 26, Jain);

the search means and the graphical user interface being arranged to co-operate (Fig. 4, item 212, Col. 15, lines 51 – 52, Jain) so that only those display points

corresponding to information items selected by the search are displayed on the user display (Col. 15, lines 46 – 49, Jain).

Regarding Claim 36, Jain discloses an interface according to claim 34, wherein the graphical user interface is arranged to display representations representative of the information content of respective-clusters of similar information items (Col. 20, lines 6 – 12, TID corresponds with “sky”, Jain).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

⁷ In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 –

Art Unit: 2162

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 5 – 6, 8 – 9, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jain et al. (Jain hereinafter) (US Patent No. 5,983,237, issued: November 9, 1999) in view of Herz et al. (Herz hereinafter) (US Patent No. 5,754,938, issued: May 19, 1998).

Regarding Claim 5, Jain discloses all the limitations as disclosed above including a feature vector for an information item. However, Jain is silent with respect to a set of frequencies of occurrence. On the other hand, Herz discloses a feature vector for an information item that represents a set of frequencies of occurrence, within that information item, of each of a group of information features (Col. 56, lines 50 – 54, Herz). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Herz' teachings to the system of Jain. Skilled artisan would have been motivated to do so, as suggested by Herz (Col. 7 and 8, lines 9 – 11 and 65 – 68 and 1 – 5, Herz), to measure similarities of profiles describing target objects of user's interests; and to further predict the information consumption patterns of a user allowing pre-caching of data at locations on the data communication network and at times that minimized the traffic flow in the communication network to thereby efficiently provide the desired information to the user and/or conserve valuable storage

Art Unit: 2162

space by only storing those target object (or segments thereof) which are relevant to the user's interest. In addition, both of the references (Jain and Herz) teach features that are directed to analogous art and they are directed to the same field of endeavor of database management system, such as, search engine and clustering. This relation between both of the references highly suggests an expectation of success.

Regarding Claim 6, the combination of Jain in view of Herz ("Jain/Herz" hereinafter) discloses a system, in which the information items comprise textual information, the feature vector for an information item represents a set of frequencies of occurrence, within that information item, of each of a group of words (Col. 56, lines 47 – 52, textual attribute, Herz).

Regarding Claim 8, Jain/Herz discloses a system, in which the information items are pre-processed for mapping by excluding words occurring with more than a threshold frequency amongst the set of information items (Col. 40, lines 14 – 16, Herz).

Regarding Claim 9, Jain/Herz discloses a system, in which the information items are pre-processed for mapping by excluding words occurring with less than a threshold frequency amongst the set of information items (Col. 40, lines 14 – 16, Herz).

Regarding Claim 19, Jain/Herz discloses a portable data processing device comprising a system according to claim 1 (Col. 30, lines 35 – 37, Herz).

11. Claims 12 – 18, 25 – 29, and 37 – 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jain et al. (Jain hereinafter) (US Patent No. 5,983,237, issued: November 9, 1999) in view of Weiss et al. (Weiss hereinafter) (US Patent App. Pub. No. 2002/0138487 A1, published: September 26, 2002).

Regarding Claim 12, Jain discloses all the limitations as disclosed above. However, Jain is silent with respect to labels. On the other hand, Weiss discloses representations on the user display as a label of the display points corresponding to the information items represented (Fig. 7, 8, and 9, Page 4 and 5, [0095] and [0099], lines 5 – 6 and 5 – 9; respectively, Weiss). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Weiss' teachings to the system of Jain. Skilled artisan would have been motivated to do so, as suggested by Weiss (Page 2, [0026] and [0027], Weiss), to provide presentation of web sites, such that the visualization reveals certain attributes of the presented web sites; and to provide a search of Web sites, which classifies the Web site according to their attributes. In addition, both of the references (Jain and Weiss) teach features that are directed to analogous art and they are directed to the same field of endeavor of database management system, such as search engines with selection criteria. This relation between both of the references highly suggests an expectation of success.

Regarding Claim 13, the combination of Jain in view of Weiss ("Jain/Weiss" hereinafter) discloses a system, wherein the label is a word or set of words (Fig. 8, Page 5, [0099], lines 5 – 9, "Charlie's Angels", Weiss).

Regarding Claim 14, Jain/Weiss discloses a system, wherein the processor determines, in respect of a set of information items with which a label is to be associated, the most frequently used word or set of words in the information items corresponding to the selected information items and applies that word or that set of words as the label (Page 2 and 4, [0046] and [0097], lines 1 – 2 and 1 – 4; respectively, Weiss).

Regarding Claim 15, Jain/Weiss discloses an information retrieval system, in which the information items are at least associated with image items, and

wherein the processor is responsive to the selected information items (Col. 9, lines 25 – 26, Jain; and Fig. 6, items 103 – 104, Page 5, [01109] - [0110], lines 1 and 1 – 3, Weiss), for providing one or more image items representative of the information content of the selected information items defined by the search criterion (Col. 9, lines 25 – 29 Jain; and Fig. 6, item 105, Page 5, [0111], lines 1 – 5, Weiss).

Regarding Claim 16, Jain/Weiss discloses a system, wherein the said processor is operable to select, from the set of image items, an image item which is representative

Art Unit: 2162

of the set of image items as a whole according to a predetermined selection criterion (Page 6, [0139], lines 1 – 6, selecting the Entertainment “continent”, Weiss).

Regarding Claim 17, Jain/Weiss discloses a system, wherein the processor is operable to select the image item a property of which is nearest to the average of the same property of the said set of image items (Page 6, [0139], lines 1 – 6, selecting the Entertainment “continent”, Weiss⁸).

Regarding Claim 18, Jain/Weiss discloses a system, wherein the said one or more representative image items are applied as labels to the display points corresponding to the information items represented thereby (Page 6, [0137], lines 7 – 11, Weiss).

Regarding Claim 25, Jain/Weiss discloses a method, comprising providing the or each said representation on the user display as a label of the display points corresponding to the information items represented thereby (Fig. 7, 8, and 9, Page 4 and 5, [0095] and [0099], lines 5 – 6 and 5 – 9; respectively, Weiss).

Regarding Claim 26, Jain/Weiss discloses a method, wherein the label is a word or set of words (Fig. 8, Page 5, [0099], lines 5 – 9, “Charlie’s Angels”, Weiss).

Regarding Claim 27, Jain/Weiss discloses a method, in which the information items are at least associated with image items, and comprising providing one or more image items representative of the information content of the selected information items defined by the search criterion (Col. 9, lines 25 – 29 Jain; and Fig. 6, item 105, Page 5, [0111], lines 1 – 5, Weiss).

Regarding Claim 28, Jain/Weiss discloses a method, comprising selecting, from the set of image items, an image item which is representative of the set of image items as a whole according to a predetermined selection criterion (Page 6, [0139], lines 1 – 6, selecting the Entertainment “continent”, Weiss).

Regarding Claim 29, Jain/Weiss discloses a method, comprising selecting the image item a property of which is nearest to the average of the same property of the said set of image items (Page 6, [0139], lines 1 – 6, selecting the Entertainment “continent”, Weiss⁹).

Regarding Claim 37, Jain/Weiss discloses an interface, wherein graphical user interface is operable to provide the or each said representation as a label of the display points corresponding to the information items represented thereby (Fig. 7, 8, and 9, Page 4 and 5, [0095] and [0099], lines 5 – 6 and 5 – 9; respectively, Weiss).

⁸ Wherein examiner interprets the subject Entertainment “continent”, which includes TV series, Movies, etc, as the property nearest to the average of the same property claimed.

⁹ Wherein examiner interprets the subject Entertainment “continent”, which includes TV series, Movies, etc, as the property nearest to the average of the same property claimed.

Regarding Claim 38, Jain/Weiss discloses an interface, wherein the label is a word or set of words (Fig. 8, Page 5, [0099], lines 5 – 9, “Charlie’s Angels”, Weiss).

Regarding Claim 39, Jain/Weiss discloses an interface, wherein the said representations are image items which are applied as labels to the display points corresponding to the information items represented thereby (Page 6, [0137], lines 7 – 11, Weiss).

Prior Art Made Of Record

1. Jain et al. (US Patent No. 5,983,237, issued: November 9, 1999) discloses a visual dictionary.
2. Herz et al. (US Patent No. 5,754,938, issued: May 19, 1998) discloses a pseudonymous server for system for customized electronic identification of desirable objects.
3. Weiss et al. (US Patent App. Pub. No. 2002/0138487 A1, published: September 26, 2002) discloses a method and system for mapping and searching the internet and displaying the results in a visual form.
4. Mao et al. (US Patent No. 7,031,909 B2) discloses a method and system naming a cluster of words and phrases.
5. Rajasekaran et al. (US Patent No. 6,959,303 B2) discloses efficient searching techniques.


Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna Colan whose telephone number is (571) 272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Giovanna Colan
Examiner
Art Unit 2162
May 5, 2006


JOHN BREENE
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